

Patent claims

1 1. ' A drive system for a tracked vehicle, having an
2 internal combustion engine (1), at least

3 1.1. one steering drive (2)

4 1.2. a differential transmission arrangement (3)
5 having at least one traction drive element (4), at least
6 one steering drive element (5) and two drive outputs (6)
7 for driving track drive wheels (7) of a drive axle (8)

8 1.3. a steering drive connection (9) between the
9 steering drive (2) and a steering drive element (5)

10 1.4. at least one further drive element (10; 30) for
11 transmitting drive power from the internal combustion
12 engine (1) to a traction drive element (4),
13 the internal combustion engine (1) being arranged parallel
14 to the drive axle (8) and transmitting drive power directly
15 or indirectly to the further drive element (10; 30) which
16 is arranged laterally next to the internal combustion
17 engine (1), as viewed in the direction of travel.

1 2. The drive system as claimed in claim 1,
2 characterized in that the further drive element for
3 transmitting drive power is a change-speed gearbox (10)
4 having at least two selectable gear stages.

1 3. The drive system as claimed in claim 2,
2 characterized in that a hydrodynamic converter (11) is
3 arranged between the internal combustion engine (1) and the
4 change-speed gearbox.

1 4. The drive system as claimed in claim 2,
2 characterized in that a further change-speed gearbox (10)
3 having at least two selectable gear stages is provided,
4 which is arranged laterally next to the first change-speed
5 gearbox (10) and forms a line parallel to the drive axle
6 (8) together with the internal combustion engine (1) and
7 the first change-speed gearbox (10).

1 5. The drive system as claimed in claim 2, 3 or 4,
2 characterized in that a further change-speed gearbox (13)
3 having at least two selectable gear stages is also
4 provided, which is arranged on the drive axle (8).

1 6. The drive system as claimed in claim 1,
2 characterized in that a generator (14; 33) which can be
3 driven by the internal combustion engine (1) is provided
4 for generating electric power.

1 7. The drive system as claimed in claim 6,
2 characterized in that the generator (14; 33) is arranged on
3 the crankshaft of the internal combustion engine (1)
4 between the internal combustion engine (1) and the further
5 drive element (10; 30).

1 8. The drive system as claimed in claim 1,
2 characterized in that the further drive element for
3 transmitting drive power is an electric traction motor
4 (30).

1 9. The drive system as claimed in claim 5,
2 characterized in that a change-speed gearbox (32) having at
3 least two selectable gear stages is provided between the
4 electric traction motor (30) and the traction drive element
5 (4).

1 10. The drive system as claimed in claim 1,
2 characterized in that an electric steering motor (2) is
3 provided as steering drive.

1 11. The drive system as claimed in claim 8, 9 or 10,
2 characterized in that the electric traction motor (30)
3 and/or the electric steering motor (2) are/is configured
4 with at least two current circuits which are independent of

5 one another, or two electric motors which can be driven
6 independently of one another are provided as traction motor
7 (30) and/or steering motor (2).

1 12. The drive system as claimed in claim 1,
2 characterized in that a retarder (15) is provided on at
3 least one traction drive element.

1 13. The drive system as claimed in claim 1,
2 characterized in that brakes (16; 34) are arranged at the
3 drive outputs (6) of the differential transmission
4 arrangement (3).

1 14. The drive system as claimed in claim 13,
2 characterized in that lateral intermediate transmissions
3 are provided at the track drive wheels (7) and the brakes
4 are integrated into the lateral intermediate transmissions.

1 15. The drive system as claimed in one of the
2 preceding claims, characterized in that the further drive
3 element (10; 30) is oriented in its main direction parallel
4 to the drive axle (8).

1 16. The drive system as claimed in one of the
2 preceding claims, characterized in that a transfer gearbox

3 (17) is provided in order to transmit drive power between
4 the traction motor (30, 31) or one of the change-speed
5 gearboxes (10, 12) and a differential transmission
6 arrangement (3).

1 17. The drive system as claimed in claim 16,
2 characterized in that the transfer gearbox (17) has at
3 least two selectable gear stages.